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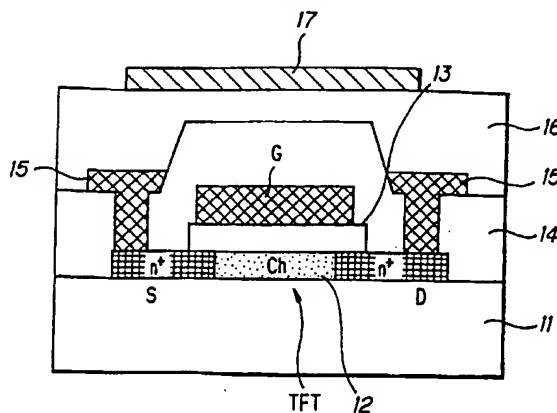
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(54) Method of processing a thin film on a substrate for display

(57) In a method of manufacturing semiconductor chips for display, a semiconductor thin film is first formed on an insulating substrate, and then a series of processes containing a heat-treatment process for the semiconductor thin film are carried out to form integrated thin film transistors on a sectioned area for one chip. Thereafter, pixel electrodes for one picture (frame) are formed within the sectioned area. During the series of processes, a laser pulse is irradiated onto the sectioned area by one shot to perform a heat treatment on the semiconductor thin film for one chip collectively and simultaneously (i.e., perform a batch heat treatment on the semiconductor thin film). Through the batch heat treatment, the crystallization of the semiconductor thin film is promoted. In addition, after the semiconductor thin film is doped with impurities, the activation of impurities doped in the semiconductor thin film can be performed by the batch heat treatment.

FIG. 4





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# EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 367 (E-462), 9 December 1986 & JP 61 163631 A (RICOH CO LTD), 24 July 1986, * abstract *	1	H01L21/20
A	--- PATENT ABSTRACTS OF JAPAN vol. 017, no. 089 (E-1323), 22 February 1993 & JP 04 282869 A (JII TEI SHII:KK), 7 October 1992, * abstract *	1	
A,D	--- PATENT ABSTRACTS OF JAPAN vol. 017, no. 387 (P-1576), 20 July 1993 & JP 05 066422 A (SONY CORP), 19 March 1993, * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01L B23K
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>3 November 1997</b>	Examiner <b>Schuermans, N</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</p>			